POLAR

POLAR M400

M400 USER MANUAL

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INTRODUCTION

Congratulations on your new M400! Designed for enthusiastic exercisers, the M400 with GPS, Smart Coaching and 24/7 activity measurement encourages you to push your boundaries and perform at your best. Get an instant overview of your training straight after your session with Flow app, and plan and analyze your training in detail with the Flow web service.

This user manual helps you get started with your new training companion. To check the video tutorials and the latest version of this user manual, go to www.polar.com/en/support/M400.

M400

Monitor your training data, such as heart rate, speed, distance and route, and even the smallest activities in your everyday life.

H7 HEART RATE SENSOR

See live, accurate heart rate on your M400 during training. Your heart rate is information used to analyze how your session went.

Only included in M400 with heart rate sensor sets. If you bought a set that does not include a heart rate sensor, not to worry, you can always buy one later.

USB CABLE

Use the USB cable to charge the battery, and to sync data between your M400 and the Polar Flow web service via FlowSync software.

POLAR FLOW APP

View your training data at a glance after every session. Flow app syncs your training data wirelessly to the Polar Flow web service. Download it from the App Store or Google Play.

POLAR FLOWSYNC SOFTWARE

Flowsync software allows you to sync data between your M400 and the Flow web service on your computer via the USB cable. Go to flow.polar.com/start to download and install Polar FlowSync software.

POLAR FLOW WEB SERVICE

Plan and analyze every detail of your training, customize your device and learn more about your performance at polar.com/flow.

GET STARTED

To make sure you get to enjoy your M400 at its best, please go to flow.polar.com/start where simple instructions will guide you through setting up your M400, downloading the latest firmware and taking the Flow web service into use.

If you're in a hurry for your first run with M400, you can do a quick set up by entering the basic settings on the device, as instructed in Basic Settings.

CHARGE THE BATTERY

After unboxing your M400, the first thing you need to do is charge the battery. Let your M400 fully charge before taking it into use for the first time.

The M400 has an internal, rechargeable battery. Use the USB cable included in the product set to charge it via the USB port on your computer. You can also charge the battery via a wall outlet. When charging via a wall outlet use a USB power adapter (not included in the product set). If you use an AC adapter, make sure that the adapter is marked with "output 5Vdc" and that it provides a minimum of 500mA. Only use an adequately safety approved AC adapter (marked with "LPS", "Limited Power Supply" or "UL listed").

1. Lift the rubber cover off the USB port. Plug the micro USB connector into the USB port in the M400, and plug the other end of the cable into your PC.
2. **Charging** appears on the display.
3. When M400 is fully charged, **Charging completed** is displayed.

Don't leave the battery fully discharged for a long period of time or keep it fully charged all the time, because it might affect the battery life time. Keep the USB port cover closed when not in use.

Do not charge the battery when the M400 is wet.

Do not charge the battery in temperatures under -10 °C or over +50 °C.

BATTERY OPERATING TIME

The battery operating time is up to 8 hours with GPS and heart rate sensor. When used only in time mode with daily activity monitoring, the operating time is approximately 30 days. The operating time depends on many factors, such as the temperature of the environment in which you use your M400, the features you use, and battery aging. The operating time is significantly reduced in temperatures well below freezing. Wearing the M400 under your overcoat helps to keep it warmer and to increase the operating time.

LOW BATTERY NOTIFICATIONS

Battery low. Charge

The battery charge is low. It is recommended to charge M400.

Charge before training

The charge is too low for recording a training session.

A new training session cannot be started before charging M400.

When the display is blank, the battery is empty and M400 has gone to sleep mode. Charge your M400. If the battery is totally drained, it may take a while for the charging animation to appear on the display.

BASIC SETTINGS

To get the most accurate and personal training data, it's important that you're precise with physical settings like your training background, age, weight and sex, as they have an effect on calorie calculation as well as other Smart Coaching features.

Choose language is displayed. Press START to choose **English**.

*If you choose a language other than English, you will be guided to go to flow.polar.com/start to get the language. When taking M400 into use with the Flow web service, you can add another language during the setup. To add another language later, go to polar.com/flow and sign in. Click your name/profile photo in the upper right corner, choose Products, and then M400 Settings. Choose the language you want from the list, and sync with your M400. The languages you can choose are:**Dansk**, **Deutsch**, **English**, **Español**, **Français**, **Italiano**, **日本語**, **Nederlands**, **Norsk**, **Polski**, **Português**, **简体中文**, **Русский**, **Suomi** or **Svenska**.*

If you choose English, **Set up your Polar M400** is displayed. Set the following data, and confirm each selection with the Start button. If at any point you want to return and change a setting, press Back until you reach the setting you want to change.

1. **Time format** : Choose **12 h** or **24 h**. With **12 h**, select **AM** or **PM**. Then set the local time.
2. **Date** : Enter the current date.
3. **Units** : Choose metric **(kg, cm)** or imperial **(lb, ft)** units.
4. **Weight** : Enter your weight.
5. **Height** : Enter your height.
6. **Date of birth** : Enter your date of birth.
7. **Sex** : Select **Male** or **Female**.
8. **Training background** : **Occasional (0-1 h/week)**, **Regular (1-3 h/week)**, **Frequent (3-5 h/week)**, **Heavy (5-8 h/week)**, **Semi-Pro (8-12 h/week)**, **Pro (12+ h/week)**. For more information on training background, see Physical Settings.
9. **Ready to go!** is displayed when you're done with the settings, and M400 goes to time view.

BUTTON FUNCTIONS AND MENU STRUCTURE

M400 has five buttons that have different functionalities depending on the situation of use. See the tables below to find out what functionalities the buttons have in different modes.

BUTTON FUNCTIONS

TIME VIEW AND MENU

LIGHT	BACK	START	UP	DOWN
• Illuminate the display	• Exit the menu • Return to the previous level	• Confirm selections • Enter pre-	• Move through selection lists	• Move through selection lists

LIGHT	BACK	START	UP	DOWN
• Press and hold to lock buttons	• Leave settings unchanged • Cancel selections • Press and hold to return to time view from menu • Press and hold to sync with Flow app in time view	training mode • Confirm the selection shown on the display	• Adjust a selected value • Press and hold to change the watch face	• Adjust a selected value

PRE-TRAINING MODE

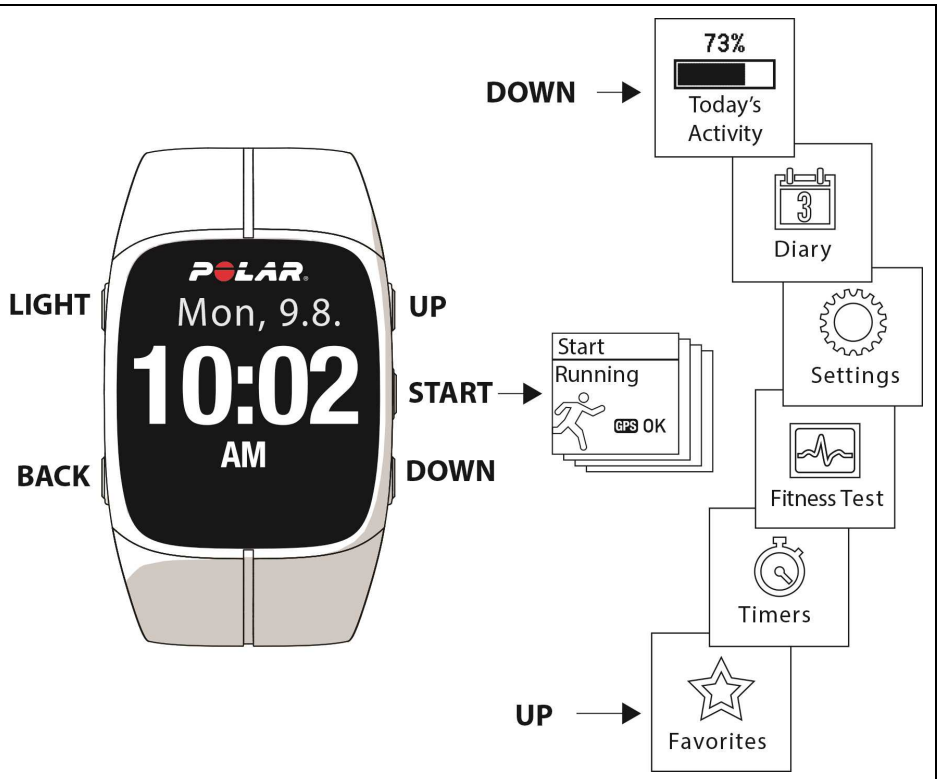
LIGHT	BACK	START	UP	DOWN
• Illuminate the display • Press and hold to enter sport profile settings	• Return to time view	• Start a training session	• Move through sports list	• Move through sports list

DURING TRAINING

LIGHT	BACK	START	UP	DOWN
• Illuminate the display • Press and hold to enter **Quick Menu**	• Pause training by pressing once • Press and hold for 3 seconds to stop training recording	• Press and hold to set zone lock on/off • Continue training recording when paused	• Change training view	• Change training view

MENU STRUCTURE

Enter and browse through the menu by pressing UP or DOWN. Confirm selections with the START button, and return with the BACK button.

In the menu you'll find: • **Today's activity** • **Diary** • **Settings** • **Fitness test** • **Timers** • **Favorites**	

TODAY'S ACTIVITY

The daily activity goal you get from Polar M400 is based on your personal data and activity level setting, which you can find in the Daily Activity Goal settings in the Flow web service.

Your daily activity goal is visualized with an activity bar. The activity bar fills up as you reach your daily goal.

In **Today's activity** you'll see details of your activity (active time, calories and steps) and options for reaching your daily activity goal.

For more information, see 24/7 Activity Tracking

DIARY

In **Diary** you'll see the current week, past four weeks and next four weeks. Select a day to see your activity and training sessions of that day, the training summary of each session and the tests you have done.You can also see your planned training sessions.

SETTINGS

In **Settings** you can edit:

- **Sport profiles**
- **Physical settings**
- **General settings**
- **Watch settings**

For more information , see Settings.

TIMERS

In **Timers** you'll find:

- **Interval timer**: Set time and/or distance based interval timers to precisely time work and recovery phases in your interval training sessions.
- **Finish time estimator**: Achieve your target time for a set distance. Set the distance for your session and M400 will estimate the finish time of the session according to your speed.

For more information, see Start a Training Session.

FITNESS TEST

Measure your fitness level while you lie down and relax.

For more information, see Fitness Test.

FAVORITES

In **Favorites** you'll find training targets that you have saved as favorites in the Flow web service.

For more information, see Favorites.

PAIRING

Before taking a new *Bluetooth* Smart ® heart rate sensor or mobile device (smartphone, tablet) into use, it has to be paired with your M400. Pairing only takes a few seconds, and ensures that your M400 receives signals from your sensors and devices only, and allows disturbance-free training in a group. Before entering an event or race, make sure that you do the pairing at home to prevent interference due to data transmission.

PAIR A HEART RATE SENSOR WITH M400

There are two ways to pair a heart rate sensor with your M400:

1. Wear your heart rate sensor, and press START in time view to enter pre-training mode.
2. **To pair, touch your sensor with M400** is displayed, touch your heart rate sensor with M400, and wait for it to be found.
3. M400 lists the heart rate sensors it finds.The device ID, for example, **Pair Polar H7 xxxxxxxx**, is displayed. Choose the heart rate sensor you want to pair and then choose **Yes**.
4. **Pairing completed** is shown when you are done.

or

1. Go to **General Settings > Pair and sync > Pair other device** and press START.
2. M400 starts searching for your heart rate sensor.
3. Once the heart rate sensor is found, the device ID, for example, **Pair Polar H7 xxxxxxxx**, is displayed. Choose the heart rate sensor you want to pair.
4. Press START, **Pairing** is displayed.
5. **Pairing completed** is displayed when you are done.

PAIR A MOBILE DEVICE WITH M400

Before pairing a mobile device, create a Polar account if you do not already have one, and download Flow app from the App Store or Google Play. Make sure you have also downloaded and installed FlowSync software onto your computer from flow.polar.com/start, and registered your M400 in the Flow web service.

Before trying to pair, make sure your mobile device has *Bluetooth* turned on, and airplane mode/flight mode is not turned on.

To pair a mobile device:

1. On your mobile device, open Flow app and sign in with your Polar account.
2. Wait for the Connect product view to appear on your mobile device (**Searching for Polar M400**) is displayed.
3. In M400 time mode, press and hold BACK.
4. **Connecting to device** is displayed, followed by **Connecting to app**.
5. Accept the Bluetooth pairing request on your mobile device and type in the pin code shown on your M400.
6. **Pairing completed** is displayed when you are done.

or

1. In M400, go to **Settings > General settings > Pair and sync > Pair mobile device** and press START
2. Once your device is found, the device ID **Polar mobile xxxxxxxx** is displayed on M400.

3. Press START, **Connecting to device** is displayed, followed by **Connecting to app**.
4. Accept the Bluetooth pairing request on your mobile device and type in the pin code shown on your M400.
5. **Pairing completed** is displayed when you are done.

DELETE A PAIRING

To delete a pairing with a sensor or mobile device:

1. Go to **Settings > General settings > Pair and sync > Paired devices** and press START.
2. Choose the device you want to remove from the list and press START.
3. **Delete pairing?** is displayed, choose **Yes** and press START.
4. **Pairing deleted** is displayed when you are done.

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SPORT PROFILE SETTINGS

Adjust the sport profile settings to best suit your training needs. In M400 you can edit certain sport profiles settings in **Settings > Sport profiles**. You can, for example, set the GPS on or off in different sports.

A wider range of customization options is available in the Flow web service. For more information, see Sport Profiles in Flow.

There are four sport profiles shown in the pre-training mode by default. In the Flow web service you can add new sports to your list, and sync them to your M400. You can have a maximum of 20 sports on your M400 at a time. The number of sport profiles in the Flow web service is not limited.

By default, in the **Sport profiles** you'll find:

- **Running**
- **Cycling**
- **Other outdoor**
- **Other indoor**

If you have edited your sport profiles in the Flow web service before your first training session,and synced them to your M400, the sport profile list will contain the edited sport profiles.

SETTINGS

To view or modify sport profile settings, go to **Settings > Sport profiles** and choose the profile you want to edit. You can also access the settings of the currently selected profile from pre-training mode by pressing and holding LIGHT.

- **Training sounds**: Choose **Off**, **Soft**, **Loud** or **Very loud**.
- **Heart rate settings**: **Heart rate view**: Choose **Beats per minute (bpm)** or **% of maximum**. **Check HR zone limits**: Check the limits for each heart rate zone. **HR visible to other device**: Choose **On** or **Off**. If you choose **On**, other compatible devices (e.g. gym equipment) can detect your heart rate.
- **GPS recording**: Choose **Off** or **On**.
- **Speed View**: Choose **km/h** (kilometers per hour) or **min/km**(minutes per kilometer). If you have chosen imperial units, choose **mph** (miles per hour) or **min/mi** (minutes per mile).
- **Automatic pause**: Choose **On** or **Off**. If you set the **automatic pause On**, your session is automatically paused when you stop moving.

GPS recording must be turned on to use automatic pause.

- **Automatic lap**: Choose **Off**, **Lap distance** or **Lap duration**. If you choose **Lap distance**, set the distance after which each lap is taken. If you choose **Lap duration**, set the duration after which each lap is taken.

GPS recording must be turned on to use distance-based automatic lap.

PHYSICAL SETTINGS

To view and edit your physical settings, go to **Settings > Physical settings**. It is important that you are precise with the physical settings, especially when setting your weight, height, date of birth and sex, as they have an impact on the accuracy of the measuring values, such as the heart rate zone limits and calorie expenditure.

In **Physical settings** you'll find:

- **Weight**
- **Height**
- **Date of birth**
- **Sex**
- **Training background**
- **Maximum heart rate**

WEIGHT

Set your weight in kilograms (kg) or pounds (lbs).

HEIGHT

Set your height in centimeters (metric) or in feet and inches (imperial).

DATE OF BIRTH

Set your birthday. The order in which the date settings are depends on which time and date format you have chosen (24h: day - month - year / 12h: month - day - year).

SEX

Select **Male** or **Female**.

TRAINING BACKGROUND

Training background is an assessment of your long-term physical activity level. Select the alternative that best describes the overall amount and intensity of your physical activity during the past three months.

- **Occasional (0-1h/week)**: You do not participate regularly in programmed recreational sport or heavy physical activity, e.g. you walk only for pleasure or exercise hard enough to cause heavy breathing or perspiration only occasionally.
- **Regular (1-3h/week)**: You participate regularly in recreational sports, e.g. you run 5-10 km or 3-6 miles per week or spend 1-3 hours per week in comparable physical activity, or your work requires modest physical activity.
- **Frequent (3-5h/week)**: You participate at least 3 times a week in heavy physical exercise, e.g. you run 20-50 km/12-31 miles per week or spend 3-5 hours per week in comparable physical activity.
- **Heavy (5-8h/week)**: You participate in heavy physical exercise at least 5 times a week, and you may sometimes take part in mass sports events.
- **Semi-pro (8-12h/week)**: You participate in heavy physical exercise almost daily, and you exercise to improve performance for competitive purposes.

- **Pro (>12h/week)**: You are an endurance athlete. You participate in heavy physical exercise to improve your performance for competitive purposes.

MAXIMUM HEART RATE

Set your maximum heart rate, if you know your current maximum heart rate value. Your age-predicted maximum heart rate value (220-age) is displayed as a default setting when you set this value for the first time.

HR_{max} is used to estimate energy expenditure. HR_{max} is the highest number of heartbeats per minute during maximum physical exertion.The most accurate method for determining your individual HR_{max} is to perform a maximal exercise stress test in a laboratory. HR_{max} is also crucial when determining training intensity. It is individual and depends on age and hereditary factors.

GENERAL SETTINGS

To view and edit your general settings, go to **Settings > General settings**

In **General settings** you'll find:

- **Pair and sync**
- **Flight mode**
- **Button sounds**
- **Button lock**
- **Inactivity alert**
- **Units**
- **Language**
- **Training view color**
- **About your product**

PAIR AND SYNC

- **Pair new device**: Pair heart rate sensors or mobile devices with your M400.
- **Paired devices**: View all the devices you have paired with your M400. These can include heart rate sensors and mobile devices.
- **Sync Data**: Sync data with Flow app. **Sync data** becomes visible after you have paired your M400 with a mobile device.

FLIGHT MODE

Choose **On** or **Off**

Flight mode cuts off all wireless communication from the device. You can still use it to collect activity, but you cannot use it in training sessions with a heart rate sensor nor sync your data to the Polar Flow mobile app because *Bluetooth*® Smart is disabled.

BUTTON SOUNDS

Set the button sounds **On** or **Off**.

Please note that this selection does not modify training sounds. Training sounds are modified in sport profile settings. For more information, see See "Sport Profile Settings" on page 19.

BUTTON LOCK

Choose **Manual lock** or **Automatic lock**.In **Manual lock** you can lock the buttons by manually from the **Quick menu**. In **Automatic Lock** the button lock automatically goes on after 60 seconds.

INACTIVITY ALERT

Set the inactivity alert **On** or **Off**.

UNITS

Choose metric **(kg, cm)** or imperial **(lb, ft)**. Set the units used to measure weight, height, distance and speed.

LANGUAGE

Choose: **Dansk**, **Deutsch**, **English**, **Español**, **Français**, **Italiano**, **日本語**, **Nederlands**, **Norsk**, **Polski**, **Português**, **简体中文**, **Русский**, **Suomi** or **Svenska**. Set the language of your M400.

TRAINING VIEW COLOR

Choose **Dark** or **Light**. Change the display color of your training view. When **Light** is chosen, the training view has a light background with dark numbers and letters. When **Dark** is chosen, the training view has a dark background with light numbers and letters.

ABOUT YOUR PRODUCT

Check the device ID of your M400, as well as the firmware version and HW model.

WATCH SETTINGS

To view and edit your watch settings, go to **Settings > Watch settings**

In **Watch settings** you'll find:

- **Alarm**
- **Time**
- **Date**
- **Week's starting day**
- **Watch face**

ALARM

Set alarm repetition: **Off, Once, Monday to Friday** or **Every day**. If you choose **Once, Monday to Friday** or **Every day**, also set the time for the alarm.

When the alarm is set on, a clock icon is displayed in the time view.

TIME

Set the time format: **24 h** or **12 h**. Then set the time of day.

When syncing with the Flow app and web service, the time of day is automatically updated from the service.

DATE

Set the date. Also set the **Date format**, you can choose **mm/dd/yyyy, dd/mm/yyyy, yyyy/mm/dd, dd-mm-yyyy, yyyy-mm-dd, dd.mm.yyyy** or **yyyy.mm.dd**.

When syncing with the Flow app and web service, the date is automatically updated from the service.

WEEK'S STARTING DAY

Choose the starting day of each week. Choose **Monday, Saturday** or **Sunday**.

When syncing with the Flow app and web service, the week's starting day is automatically updated from the service.

WATCH FACE

Choose the watch face:

- **Daily Activity** (+ Date and time)
- **Your name and time**

- **Analog**
- **Big**

QUICK MENU

In pre-training mode, press and hold LIGHT to access the settings of the currently chosen sport profile:

- **Training sounds**: Choose **Off**, **Soft**, **Loud** or **Very loud**.
- **Heart rate settings**: **Heart rate view**: Choose **Beats per minute (bpm)** or **% of maximum**. **Check HR zone limits**: Check the limits for each heart rate zone. **HR visible to other device**: Choose **On** or **Off**. If you choose **On**, other compatible devices (e.g. gym equipment) can detect your heart rate.
- **GPS recording**: Choose **Off** or **On**.
- **Speed View**: Choose **km/h** (kilometers per hour) or **min/km**(minutes per kilometer). If you have chosen imperial units, choose **mph** (miles per hour) or **min/mi** (minutes per mile).
- **Automatic pause**: Choose **On** or **Off**. If you set the **automatic pauseOn**, your session is automatically paused when you stop moving.
- **Automatic lap**: Choose **Off**, **Lap distance** or **Lap duration**. If you choose **Lap distance**, set the distance after which each lap is taken. If you choose **Lap duration**, set the duration after which each lap is taken.

In training view, press and hold LIGHT to enter **Quick menu**. In the training view **Quick menu**, you'll find:

- **Lock buttons**: Press START to lock buttons. To unlock, press and hold LIGHT.
- **Set backlight**: Set **On** or **Off**.
- **Search Sensor**: Search for a heart rate sensor.
- **Interval timer**: Create time and/or distance based interval timers to precisely time work and recovery phases in your interval training sessions.
- **Finish time estimator** : Set the distance for your session and M400 will estimate the finish time of the session according to your speed.
- **Current location info**: This selection is only available if GPS is set on for the sport profile.
- Choose **Set location guide on**, and press START. **Location guide arrow view set on** is displayed, and M400 goes to **Back to Start** view.

In pause mode, press and hold LIGHT to enter **Quick menu**. In the pause mode **Quick menu**, you'll find:

- **Lock buttons**: Press START to lock buttons. To unlock, press and hold LIGHT.
- **Training sounds**: Choose **Off**, **Soft**, **Loud** or **Very loud**.

- **Heart rate settings**: **Heart rate view**: Choose **Beats per minute (bpm)** or **% of maximum**. **Check HR zone limits**: Check the limits for each heart rate zone. **HR visible to other device**: Choose **On** or **Off**. If you choose **On**, other compatible devices (e.g. gym equipment) can detect your heart rate.
- **GPS recording**: Choose **Off** or **On**.
- **Speed View**: Choose **km/h** (kilometers per hour) or **min/km**(minutes per kilometer). If you have chosen imperial units, choose **mph** (miles per hour) or **min/mi** (minutes per mile).
- **Automatic pause**: Choose **On** or **Off**. If you set the **automatic pauseOn**, your session is automatically paused when you stop moving.
- **Automatic lap**: Choose **Off**, **Lap distance** or **Lap duration**. If you choose **Lap distance**, set the distance after which each lap is taken. If you choose **Lap duration**, set the duration after which each lap is taken.

GPS recording must be turned on to use automatic pause or distance-based automatic lap.

FIRMWARE UPDATE

The firmware of your M400 can be updated. Any time a new firmware version is available, FlowSync will notify you when connecting M400 to your computer with the USB cable. The firmware updates are downloaded via the USB cable and FlowSync software. Flow app will also notify you when new firmware is available.

Firmware updates are performed to improve the functionality of your M400. They can include improvements to existing features, completely new features or bug fixes, for example.

HOW TO UPDATE FIRMWARE

To update the firmware of your M400, you must have:

- A Flow web service account
- Installed FlowSync software
- Registered your M400 in the Flow web service

Go to flow.polar.com/start, and create your Polar account in the Polar Flow web service and download and install FlowSync software onto your PC.

To update the firmware:

1. Plug the micro USB connector into the USB port in the M400, and plug the other end of the cable into your PC.
2. FlowSync starts syncing your data.
3. After syncing, you are asked to update the firmware.
4. Choose Yes. New firmware is installed (this may take some time), and M400 restarts.

Before updating the firmware, the most important data from your M400 is synced to the Flow web service. Therefore you will not lose important data when updating.

TRAINING

WEAR HEART RATE SENSOR

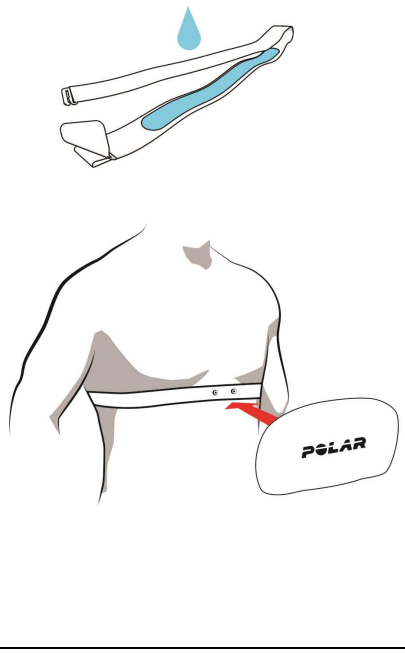
Use our heart rate sensors when training to get the most out of Polar's unique Smart Coaching features. Heart rate data gives you an insight into your physical condition and how your body responds to training. This will help you run at the right intensity and improve your fitness.

Although there are many subjective clues as to how your body is doing during exercise (perceived exertion, breathing rate, physical sensations), none is as reliable as measuring heart rate. It is objective and is affected by both internal and external factors - meaning you will have a dependable measure of your physical state.

PAIR HEART RATE SENSOR

1. Wear your heart rate sensor, and press START in time view to enter pre-training mode.
2. **To pair, touch your sensor with M400** is displayed, touch your heart rate sensor with M400 , then wait for it to be found.
3. The device ID **Pair Polar H7 xxxxxxxx** is displayed. Choose **Yes**.
4. **Pairing completed** is shown when you are done.

You can also pair a new sensor in **Settings > General settings > Pair and sync > Pair new device**. For more information pairing, see Pairing.

1. Moisten the electrode areas of the strap. 2. Attach the connector to the strap. 3. Adjust the strap length to fit tightly but comfortably. Tie the strap around your chest, just below the chest muscles, and attach the hook to the other end of the strap. 4. Check that the moist electrode areas are firmly against your skin and that the Polar logo of the connector is in a central and upright position.	

Detach the connector from the strap, and rinse the strap under running water after every training session. Sweat and moisture may keep the heart rate sensor activated, so also remember to wipe it dry.

START A TRAINING SESSION

Wear the heart rate sensor, and make sure you have paired it with your M400.

	In time view, press START to enter pre-training mode.
	Choose the sport profile you want to use with UP/DOWN. *To change the sport profile settings before starting your session (in pre-training mode), press and hold LIGHT to enter the **Quick Menu**. To return to the pre-training mode, press BACK.* If you have activated the GPS function, M400 will automatically start searching for the signals.
	Stay in the pre-training mode until M400 has found GPS satellite signals and your heart rate sensor to make sure your training data is accurate. To catch the GPS satellite signals, go outdoors and away from tall buildings and trees. For best GPS performance, wear M400 on your wrist with the display facing up. Keep it in a horizontal position in front of you and away from your chest. Keep your arm stationary and raised above the level of your chest during the search.Stand still and hold the position until M400 has found the satellite signals. This typically takes 30-60 seconds the first time. On future occasions it should take only a few seconds. The percentage value shown next to the GPS icon indicates when the GPS is ready. When it reaches 100 %, OK is displayed, and you are ready to go. M400 has found your heart rate sensor signal, when your heart rate is shown. When M400 has found all the signals, press START. **Recording started** is displayed and you can start training. *Due to the location of the GPS antenna on the M400, it is not recommended to wear it with the display on the underside of your wrist. When wearing it on the handlebars of a bike, make sure the display is facing up.*

	M400 uses AssistNow™ satellite prediction technology to acquire a fast satellite fix. It accurately predicts satellite positions for up to three days after initial capture allowing you to find satellite signals as fast as in 10 seconds.

During training recording you can change the training view with UP/DOWN. To change settings without stopping the training recording, press and hold LIGHT to enter **Quick menu**. For more information, see Quick Menu.

To pause a training session, press the BACK button. **Recording paused** is displayed and the M400 goes to pause mode. To continue your training session, press START.

To stop a training session, press and hold the BACK button for three seconds during training recording or in pause mode until **Recording ended** is displayed.

START A SESSION WITH TRAINING TARGET

You can create detailed training targets in the Flow web service and sync them to your M400 via Flowsync software or Flow app. During training you can easily follow the guidance on your device.

To start a training session with a training target, do as follows:

1. Begin by going to **Diary** or **Favorites**.
2. In **Diary**, choose the day the target is scheduled and press START, and then choose the target from the list and press **START**. Any notes you have added to the target are displayed.

   or

   In **Favorites**, choose the target from the list and press START. Any notes you have added to the target are displayed.
3. Press START to enter the pre-training mode, and choose the sport profile you want to use.
4. When M400 has found all the signals, press START. **Recording started** is displayed and you can start training.

For more information on training targets, see Training Targets.

START A SESSION WITH INTERVAL TIMER

You can set one repeating or two alternating time and/or distance based timers for guiding your work and recovery phases in interval training.

1. Begin by going to **Timers** > **Interval timer**. Choose **Set timer(s)** to create new timers.
2. Choose **Time-based** or **Distance-based**:
    - **Time-based**: Define minutes and seconds for the timer and press START.
    - **Distance-based**: Set the distance for the timer and press START.
3. **Set another timer?** is shown. To set another timer, choose **Yes** and repeat step 2.
4. When completed, choose **Start X.XX km / XX:XX** and press START to enter the pre-training mode, and then choose the sport profile you want to use.
5. When M400 has found all the signals, press START. **Recording started** is displayed and you can start training.

*You can also start the **Interval timer** during the session, for example after warm-up. Press and hold LIGHT to enter **Quick menu**, and then choose **Interval timer**.*

START A SESSION WITH FINISH TIME ESTIMATOR

Set the distance for your session and M400 will estimate the finish time of the session according to your speed.

1. Begin by going to **Timers** > **Finish time estimator**.
2. To set a target distance, go to **Set distance** and choose **5.00 km**, **10.00 km**, **1/2 marathon**, **Marathon** or **Set other distance**. Press START. If you choose **Set other distance**, set the distance and press START. **Finish time will be estimated for XX.XX** is shown.
3. Choose **Start XX.XX km / X.XX mi** and press START to enter the pre-training mode, then choose the sport profile you want to use.
4. When M400 has found all the signals, press START. **Recording started** is displayed and you can start training.

*You can also start the **Finish time estimator** during the session, for example after warm-up. Press and hold LIGHT to enter **Quick menu**, and then choose **Finish time estimator**.*

FUNCTIONS DURING TRAINING

TAKE A LAP

Press START to record a lap. Laps can also be taken automatically. In sport profile settings, set **Automatic lap** to **Lap distance** or **Lap duration**. If you choose **Lap distance**, set the distance after which each lap is taken. If you choose **Lap duration**, set the duration after each lap is taken.

LOCK A HEART RATE ZONE

Press and hold START to lock the heart rate zone you are currently in. To lock/unlock the zone, press and hold START. If your heart rate goes outside the locked zone, you will be notified with audio feedback.

CHANGE PHASE DURING A PHASED SESSION

Press and hold LIGHT. **Quick menu** is displayed. Choose **Start next phase** from the list, and press START (if manual phase change is chosen when creating the target). If automatic is chosen, the phase will change automatically when you have finished a phase. You will be notified with an audio feedback.

CHANGE SETTINGS IN QUICK MENU

Press and hold LIGHT. **Quick menu** is displayed. You can change the following settings without pausing your training session:

- **Set Constant Backlight On**: Choose **Set backlight on** from the list, and press START. When enabled, the backlight stays on continuously. You can turn the constant backlight off and on again by pressing LIGHT. Please note that using this function shortens battery life.
- **Set Location Guide On**: The back to start feature guides you back to the starting point of your session. Choose **Set location guide on**, and press START. **Location guide arrow view set on** is displayed, and M400 goes to **Back to Start** view. For more information, see Back to start.
- **Set time and/or distance based interval timers**: Choose **Interval timer** from the list, and press START. Choose **Start X.XX km / XX:XX** to use a previously set timer or create a new timer in **Set Timer**.
- **Start the Finish Time Estimator**: Choose **Finish time estimator** from the list, and press START. Choose **Start XX.XX km / X.XX mi** to use a previously set target distance or set new target in **Set distance**.
- **Set Automatic Pause On or Off**: When you start or stop moving, your M400 automatically starts and stops training recording. GPS recording must set on for automatic pause to work.

PAUSE/STOP A TRAINING SESSION

	1. To pause a training session, press the BACK button. **Recording paused** is displayed and the M400 goes to pause mode. To continue your training session, press START.
	2. To stop a training session, press and hold the BACK button for three seconds during training recording or in pause mode until **Recording ended** is displayed.

If you stop your session after pausing, the time elapsed after pausing is not included in the total training time.

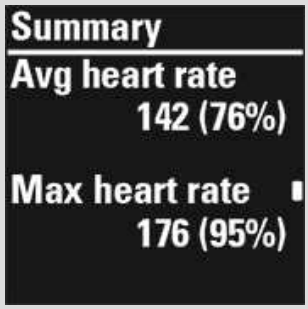
AFTER TRAINING

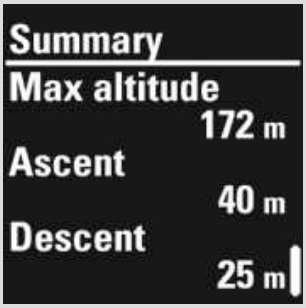
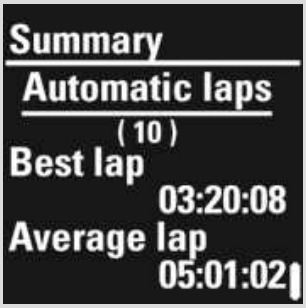
Get instant analysis and in-depth insights into your training with M400, Flow app and Flow web service.

TRAINING SUMMARY ON YOUR M400

After each training session, you'll get an instant training summary of your session. To view your training summary later, go to **Diary** and choose the day, and then choose the summary of the session you want to view.

	M400 rewards you every time you reach your **Personal best** result in average speed/pace, distance or calories. The **Personal best** results are separate for each sport profile.
	Time when you started the session, duration of the session and distance covered during the session. *Distance is visible if you trained outdoors and the GPS function was on.*
	Textual feedback on your performance. The feedback is based on training time distribution on heart rate zones, calorie expenditure and duration of the session. Press START for more details. ***Training benefit** is shown if you used a heart rate sensor and trained for at least a total of 10 minutes in the heart rate zones.*

	Time you spent on each heart rate zone. *Visible if you used a heart rate sensor.*
	Your average and maximum heart rate are shown in beats per minute and percentage of maximum heart rate. *Visible if you used a heart rate sensor.*
	Calories burned during the session and fat burn % of calories
	Average and maximum speed/pace of the session. *Visible if you trained outdoors and the GPS function was on.*
	Your Running Index is calculated when you train outdoors with the GPS function on and you are using a heart rate sensor. The following requirements also apply: • Sport profile used is a running type sport (Running, Road Running, Trail running etc.) • Speed should be 6 km/h / 3,75 mi/h or faster and duration a minimum of 12 minutes

	For further information, see Running Index.
	Maximum altitude, ascended meters/feet and descended meters/feet. *Visible if you trained outdoors and the GPS function was on.*
	The number of laps and the best and average duration of a lap. Press START for more details.
	The number of automatic laps and the best and average duration of an automatic lap. Press START for more details.

POLAR FLOW APP

Sync your M400 with Flow app to analyze your data at a glance after each session. The Flow app allows you to see a quick overview of your training data offline.

For information, see Polar Flow App.

POLAR FLOW WEB SERVICE

The Polar Flow web service allows you to analyze every detail of your training and learn more about your performance. Follow your progress and also share your best sessions with others.

For more information, see Polar Flow Web Service.

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GPS

The M400 has built-in GPS that provides accurate speed and distance measurement for a range of outdoor sports, and allows you to see your route on map in the Flow app and web service after your session.

M400 includes the following GPS features:

- **Altitude, ascent and descent**: Real-time altitude measurement, as well as ascended and descended meters/feet.
- **Distance**: Accurate distance during and after your session.
- **Speed/Pace**: Accurate speed/pace information during and after your session.
- **Running index**: In M400, Running Index is based on heart rate and speed data measured during the run. It gives information about your performance level, both aerobic fitness and running economy.
- **Back to start**: Directs you to your starting point in the shortest distance possible, as well as shows the distance to your starting point. Now you can check out more adventurous routes and explore them safely, knowing that you're only a touch of a button away from seeing the direction to where you started.

For best GPS performance, wear M400 on your wrist with the display facing up. Due to the location of the GPS antenna on the M400, it is not recommended to wear it with the display on the underside of your wrist. When wearing it on the handlebars of a bike, make sure the display is facing up.

BACK TO START

The back to start feature guides you back to the starting point of your session.

To use the back to start feature:

1. Press and hold LIGHT. **Quick menu** is displayed.
2. Choose **Set location guide on**, **Location guide arrow view set on** is displayed, and M400 goes to **Back to Start** view.

To return to your starting point:

- Keep M400 in a horizontal position in front of you.
- Keep moving in order for M400 to determine which direction you are going. An arrow will point in the direction of your starting point.
- To get back to the starting point, always turn in the direction of the arrow.
- The M400 also shows the bearing and the direct distance (beeline) between you and the starting point.

When in unfamiliar surroundings, always keep a map at hand in case the M400 loses the satellite signal or the battery runs out.

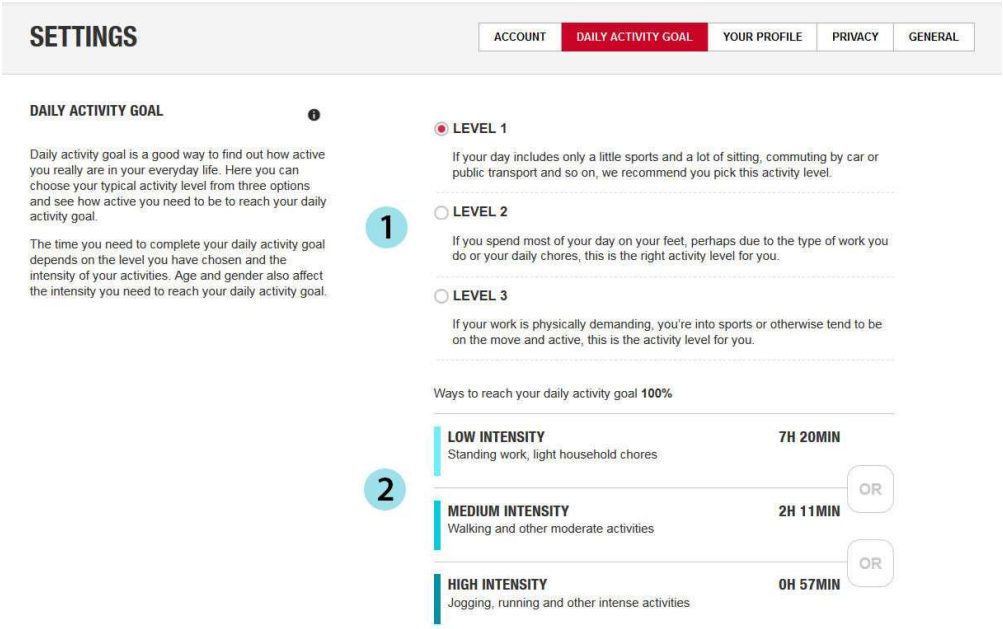
24/7 ACTIVITY TRACKING

M400 tracks your activity with an internal 3D accelerometer that records your wrist movements. It analyzes the frequency, intensity and regularity of your movements together with your physical information, allowing you to see how active you really are in your everyday life, on top of your regular training.

ACTIVITY GOAL

Your M400 gives you an activity goal each day and guides you in reaching it. The activity goal is based on your personal data and activity level setting, which you can find in the Daily Activity Goal settings in the Flow web service. Sign in to the Flow web service, click your name/profile photo in the upper right corner and go to the Daily Activity goal tab in Settings.

The Daily Activity goal setting lets you choose from three activity levels the one that best describes your typical day and activity (see number 1 in the image below). Below the selection area (see number 2 in the image below), you can see how active you need to be to reach your daily activity goal on the chosen level. For example, if you're an office worker and spend most of your day sitting, you would be expected to reach about four hours of low intensity activity during an ordinary day. For people who stand and walk a lot during their working hours, the expectations are higher.


SETTINGS
ACCOUNT
DAILY ACTIVITY GOAL
YOUR PROFILE
PRIVACY
GENERAL
DAILY ACTIVITY GOAL
Daily activity goal is a good way to find out how active you really are in your everyday life. Here you can choose your typical activity level from three options and see how active you need to be to reach your daily activity goal.
The time you need to complete your daily activity goal depends on the level you have chosen and the intensity of your activities. Age and gender also affect the intensity you need to reach your daily activity goal.
1
LEVEL 1
If your day includes only a little sports and a lot of sitting, commuting by car or public transport and so on, we recommend you pick this activity level.
LEVEL 2
If you spend most of your day on your feet, perhaps due to the type of work you do or your daily chores, this is the right activity level for you.
LEVEL 3
If your work is physically demanding, you're into sports or otherwise tend to be on the move and active, this is the activity level for you.
Ways to reach your daily activity goal 100%
2
LOW INTENSITY
Standing work, light household chores
7H 20MIN
OR
MEDIUM INTENSITY
Walking and other moderate activities
2H 11MIN
OR
HIGH INTENSITY
Jogging, running and other intense activities
0H 57MIN

The time you need to be active during the day to reach your activity goal depends on the level you have chosen and the intensity of your activities. Meet your goal faster with more intense activities or stay active at a slightly more moderate pace throughout the day. Age and gender also affect the intensity you need to reach your activity goal. The younger you are, the more intense your activity needs to be.

ACTIVITY DATA

M400 gradually fills up an activity bar to indicate your progress towards your daily goal. When the bar is full, you've reached your goal. You can view the activity bar in **Today's activity** and in time view (change the watch face by pressing and holding UP).

In **Today's activity** you can see how active your day has been so far and get guidance on how to reach you goal.

- **Activity**
  - **Active time**: Active time tells you the cumulative time of body movements that benefit your health.
  - **Calories**: Shows how many calories you've burned through training, activity and BMR (Basal metabolic rate: the minimum metabolic activity required to maintain life).
  - **Steps**: Steps you've taken so far. The amount and type of body movements are registered and turned into an estimation of steps.
- **To go**: Your M400 gives you options for reaching your daily activity goal. It tells you how much longer you need to be active if you choose low, medium or high intensity activities. You have one goal, but a number of ways to achieve it. The daily activity goal can be reached at low, medium or high intensities. In the M400, 'up' means low intensity, 'walking' means medium intensity, and 'jogging' means high

intensity.You can find more examples for low, medium and high intensity activities at the Flow web service and mobile app and choose the best way of reaching your goal.

Inactivity alert

It's widely known that physical activity is a major factor in maintaining health. In addition to being physically active, it's important to avoid prolonged sitting. Sitting for long periods of time is bad for your health, even on those days when you train and gain enough daily activity. Your M400 spots if you're being inactive for too long during your day and this way helps you to break up your sitting to avoid the negative effects it has on your health.

If you've been still for almost an hour, you'll get an inactivity alert - **It's time to move** is shown. Stand up and find your own way to be active. Take a short walk, stretch, or do some other light activity. The message goes away when you start moving or press any button. If you don't get active in five minutes, you'll get an inactivity stamp, which you can see on the Flow app and Flow web service after syncing.

You can set the alert on or off in **Settings** > **General Settings** > **Inactivity alert**.

The Flow app gives the same notification if it has a Bluetooth connection to your M400.

Both the Polar Flow app and the Polar Flow web service will show you how many inactivity stamps you have received. This way you can check back on your daily routine and make changes toward a more active life.

Sleep information at Flow web service and Flow app

M400 will track your sleep time and quality (restful or restless), if you wear it at night. You don't have to turn the sleep mode on, the device automatically detects from your wrist movements that you're sleeping. Sleep time, and its quality (restful or restless) is shown at the Flow web service and Flow app after M400 is synced.

Your sleep time is the longest continuous rest time that takes place within 24 hours starting from 18:00/6pm to next day's 18:00/6pm. Breaks shorter than one hour in your sleep don't stop sleep tracking, but they are not taken into account in the sleep time. Breaks longer than one hour stop sleep time tracking.

The periods when you sleep peacefully and don't move a lot are calculated as restful sleep. The periods when you move and change your position are calculated as restless sleep. Instead of simply summing up all the immobile periods, the algorithm gives more weight to long than short immobile periods. The percentage of restful sleep compares the time you slept restfully with the total sleeping time. Restful sleep is highly individual and should be interpreted together with sleep time.

Knowing the amount of restful and restless sleep gives you a look into how you sleep at night and if it's affected by any changes in your daily life. This may help you in finding ways to improve your sleep and feel well rested during the day.

Activity data in Flow App and Flow web service

With the Polar Flow mobile app you can follow and analyze your activity data on the go and have your data synced wirelessly from your M400 to the Polar Flow service. The Flow web service gives you the most detailed insight into your activity information.

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SMART COACHING

Whether it's assessing your day-to-day fitness levels, creating individual training plans, working out at the right intensity or receiving instant feedback, Smart Coaching offers a choice of unique, easy-to-use features, personalized to your needs and designed for maximum enjoyment and motivation when training.

M400 includes the following Smart Coaching features:

- Training Benefit
- Fitness Test
- Running Index
- Heart rate zones
- Smart calories

TRAINING BENEFIT

The Training Benefit feature helps you better understand the effectiveness of your training. This feature requires the use of the heart rate sensor. After each training session you get textual feedback on your performance providing that you have trained at least a total of 10 minutes in the sport zones. The feedback is based on training time distribution on sport zones, calorie expenditure and duration. In Training Files you get the feedback in more detail. The descriptions of different training benefit options are listed in the table below

Feedback	Benefit
Maximum training+	That was a hard session! You improved your sprint speed and the nervous system of your muscles, which make you more efficient. This session also increased your resistance to fatigue.
Maximum training	That was a hard session! You improved your sprint speed and the nervous system of your muscles, which make you more efficient.
Maximum & Tempo training	What a session! You improved your speed and efficiency. This session also significantly developed your aerobic fitness and your ability to sustain high intensity effort for longer.
Tempo & Maximum training	What a session! You significantly improved your aerobic fitness and your ability to sustain high intensity effort for longer. This session also developed your speed and efficiency.
Tempo training+	Great pace in a long session! You improved your aerobic fitness, speed, and ability to sustain high intensity effort for longer. This session also increased your resistance to fatigue.
Tempo training	Great pace! You improved your aerobic fitness, speed, and ability to sustain high intensity effort for longer.

Feedback	Benefit
Tempo & Steady state training	Good pace! You improved your ability to sustain high intensity effort for longer. This session also developed your aerobic fitness and the endurance of your muscles.
Steady state & Tempo training	Good pace! You improved your aerobic fitness and the endurance of your muscles. This session also developed your ability to sustain high intensity effort for longer.
Steady state training +	Excellent! This long session improved the endurance of your muscles and your aerobic fitness. It also increased your resistance to fatigue.
Steady state training	Excellent! You improved the endurance of your muscles and your aerobic fitness.
Steady state & Basic training, long	Excellent! This long session improved the endurance of your muscles and your aerobic fitness. It also developed your basic endurance and your body's ability to burn fat during exercise.
Steady state & Basic training	Excellent! You improved the endurance of your muscles and your aerobic fitness. This session also developed your basic endurance and your body's ability to burn fat during exercise.
Basic & Steady state training, long	Great! This long session improved your basic endurance and your body's ability to burn fat during exercise. It also developed the endurance of your muscles and your aerobic fitness.
Basic & Steady state training	Great! You improved your basic endurance and your body's ability to burn fat during exercise. This session also developed the endurance of your muscles and your aerobic fitness.
Basic training, long	Great! This long, low intensity session improved your basic endurance and your body's ability to burn fat during exercise.
Basic training	Well done! This low intensity session improved your basic endurance and your body's ability to burn fat during exercise.
Recovery training	Very nice session for your recovery. Light exercise like this allows your body to adapt to your training.

FITNESS TEST

The Polar Fitness Test is an easy, safe and quick way to estimate your aerobic (cardiovascular) fitness at rest. The result, Polar OwnIndex, is comparable to maximal oxygen uptake (VO_{2max}), which is commonly used to evaluate aerobic fitness. Your long-term training background, heart rate, heart rate variability at rest, gender, age, height, and body weight all influence OwnIndex. The Polar Fitness Test is developed for use by healthy adults.

Aerobic fitness relates to how well your cardiovascular system works to transport oxygen to your body. The better your aerobic fitness, the stronger and more efficient your heart is. Good aerobic fitness has many health

benefits. For example, it helps in decreasing the risk of high blood pressure and your risk of cardiovascular diseases and stroke. If you want to improve your aerobic fitness it takes, on average, six weeks of regular training to see a noticeable change in your OwnIndex. Less fit individuals see progress even more rapidly. The better your aerobic fitness, the smaller the improvements in your OwnIndex.

Aerobic fitness is best improved by training types that use large muscle groups. Such activities include running, cycling, walking, rowing, swimming, skating, and cross-country skiing. To monitor your progress, start by measuring your OwnIndex a couple of times during the first two weeks in order to get a baseline value, and then repeat the test approximately once a month.

To make sure the test results are reliable, the following basic requirements apply:

- You can perform the test anywhere - at home, at the office, at a health club - provided the testing environment is peaceful. There should be no disturbing noises (e.g. television, radio, or telephone) and no other people talking to you.
- Always take the test in the same environment and at the same hour.
- Avoid eating a heavy meal or smoking 2-3 hours prior to testing.
- Avoid heavy physical exertion, alcohol, and pharmaceutical stimulants on the test day and the previous day.
- You should be relaxed and calm. Lie down and relax for 1-3 minutes before starting the test.

BEFORE THE TEST

Wear your heart rate sensor. For more information, see Wear Heart Rate Sensor.

Before starting the test, make sure your physical settings including training background are accurate in **Settings > Physical settings**

PERFORMING THE TEST

To perform the fitness test, go to**Tests > Fitness Test > Relax and start the test**.

- **Searching for heart rate** is displayed. When heart rate is found, a heart rate graph, your current heart rate and **Lie down & relax** is shown on the display. Stay relaxed and limit body movements and communication with other people.
- You can interrupt the test in any phase by pressing BACK. **Test canceled** is displayed.

If M400 cannot receive your heart rate signal, the message **Test failed** is displayed. In which case, you should check that the heart rate sensor electrodes are wet and that the textile strap fits snugly.

TEST RESULTS

When the test is over, you hear two beeps along with a description of your fitness test result and your estimated VO_{2max} is displayed.

Update to VO2max to physical settings? is displayed.

- Select **Yes** to save the value to your **Physical settings**.
- Select **No** only if you know your recently measured VO_{2max} value, and if it differs more than one fitness level class from the result.

Your latest test result is shown in **Tests > Fitness test > Latest result**. Only your most recently performed test result is shown.

For a visual analysis of your Fitness test results, go to the Flow web service and select the test from your Diary to view details from it.

Fitness Level Classes

Men

Age / Years	Very low	Low	Fair	Moderate	Good	Very good	Elite
20-24	< 32	32-37	38-43	44-50	51-56	57-62	> 62
25-29	< 31	31-35	36-42	43-48	49-53	54-59	> 59
30-34	< 29	29-34	35-40	41-45	46-51	52-56	> 56
35-39	< 28	28-32	33-38	39-43	44-48	49-54	> 54
40-44	< 26	26-31	32-35	36-41	42-46	47-51	> 51
45-49	< 25	25-29	30-34	35-39	40-43	44-48	> 48
50-54	< 24	24-27	28-32	33-36	37-41	42-46	> 46
55-59	< 22	22-26	27-30	31-34	35-39	40-43	> 43
60-65	< 21	21-24	25-28	29-32	33-36	37-40	> 40

Women

Age / Years	Very low	Low	Fair	Moderate	Good	Very good	Elite
20-24	< 27	27-31	32-36	37-41	42-46	47-51	> 51
25-29	< 26	26-30	31-35	36-40	41-44	45-49	> 49
30-34	< 25	25-29	30-33	34-37	38-42	43-46	> 46
35-39	< 24	24-27	28-31	32-35	36-40	41-44	> 44
40-44	< 22	22-25	26-29	30-33	34-37	38-41	> 41
45-49	< 21	21-23	24-27	28-31	32-35	36-38	> 38
50-54	< 19	19-22	23-25	26-29	30-32	33-36	> 36

Age / Years	Very low	Low	Fair	Moderate	Good	Very good	Elite
55-59	< 18	18-20	21-23	24-27	28-30	31-33	> 33
60-65	< 16	16-18	19-21	22-24	25-27	28-30	> 30

The classification is based on a literature review of 62 studies where VO_{2max} was measured directly in healthy adult subjects in the USA, Canada and 7 European countries. Reference: Shvartz E, Reibold RC. Aerobic fitness norms for males and females aged 6 to 75 years: a review. Aviat Space Environ Med; 61:3-11, 1990.

VO_{2MAX}

A clear link exists between maximal oxygen consumption ($VO2_{max}$) of the body and cardiorespiratory fitness because oxygen delivery to tissues is dependent on lung and heart function. $VO2_{max}$ (maximal oxygen uptake, maximal aerobic power) is the maximal rate at which oxygen can be used by the body during maximal exercise; it is related directly to the maximal capacity of the heart to deliver blood to the muscles. $VO2_{max}$ can be measured or predicted by fitness tests (e.g. maximal exercise tests, submaximal exercise tests, Polar Fitness Test). $VO2_{max}$ is a good index of cardiorespiratory fitness and a good predictor of performance capability in endurance events such as distance running, cycling, cross-country skiing, and swimming.

$VO2_{max}$ can be expressed either as milliliters per minute (ml/min = ml ■ min-1) or this value can be divided by the person's body weight in kilograms (ml/kg/min = ml ■ kg-1■ min-1).

RUNNING INDEX

Running Index offers an easy way to monitor running performance changes. A running index value is an estimate of maximal aerobic running performance, which is influenced by aerobic fitness and running economy. By recording your Running Index over time, you can monitor progress. Improvement means that running at a given pace requires less of an effort, or that your pace is faster at a given level of exertion.

To receive the most accurate information on your performance, make sure you have set your HR_{max} value.

Running Index is calculated during every training session when heart rate sensor is in use and the GPS function is on, and when the following requirements apply:

- Sport profile used is a running type sport (Running, Road Running, Trail running etc.)
- Speed should be 6 km/h / 3,75 mi/h or faster and duration 12 minutes minimum

Calculation begins when you start recording the session. During a session, you may stop twice at traffic lights, for example, without interrupting the calculation. After your session, M400 displays a Running Index value and stores the result in the training summary.

Compare your result to the table below.

SHORT-TERM ANALYSIS

Men

Age / Years	Very low	Low	Fair	Moderate	Good	Very good	Elite
20-24	< 32	32-37	38-43	44-50	51-56	57-62	> 62
25-29	< 31	31-35	36-42	43-48	49-53	54-59	> 59
30-34	< 29	29-34	35-40	41-45	46-51	52-56	> 56
35-39	< 28	28-32	33-38	39-43	44-48	49-54	> 54
40-44	< 26	26-31	32-35	36-41	42-46	47-51	> 51
45-49	< 25	25-29	30-34	35-39	40-43	44-48	> 48
50-54	< 24	24-27	28-32	33-36	37-41	42-46	> 46
55-59	< 22	22-26	27-30	31-34	35-39	40-43	> 43
60-65	< 21	21-24	25-28	29-32	33-36	37-40	> 40

Women

Age / Years	Very low	Low	Fair	Moderate	Good	Very good	Elite
20-24	< 27	27-31	32-36	37-41	42-46	47-51	> 51
25-29	< 26	26-30	31-35	36-40	41-44	45-49	> 49
30-34	< 25	25-29	30-33	34-37	38-42	43-46	> 46
35-39	< 24	24-27	28-31	32-35	36-40	41-44	> 44
40-44	< 22	22-25	26-29	30-33	34-37	38-41	> 41
45-49	< 21	21-23	24-27	28-31	32-35	36-38	> 38
50-54	< 19	19-22	23-25	26-29	30-32	33-36	> 36
55-59	< 18	18-20	21-23	24-27	28-30	31-33	> 33
60-65	< 16	16-18	19-21	22-24	25-27	28-30	> 30

The classification is based on a literature review of 62 studies where VO_{2max} was measured directly in healthy adult subjects in the USA, Canada and 7 European countries. Reference: Shvartz E, Reibold RC. Aerobic fitness norms for males and females aged 6 to 75 years: a review. Aviat Space Environ Med; 61:3-11, 1990.

There may be some daily variation in the Running Indexes. Many factors influence Running Index. The value you receive on a given day is affected by changes in running circumstances, for example different surface, wind or temperature, in addition to other factors.

LONG-TERM ANALYSIS

The single Running Index values form a trend that predicts your success in running certain distances.

The following chart estimates the duration that a runner can achieve in certain distances when performing maximally. Use your long-term Running Index average in the interpretation of the chart. The prediction is best for those Running Index values that have been received at speed and running circumstances similar to the target performance.

Running Index	Cooper test (m)	5 km (h:mm:ss)	10 km (h:mm:ss)	Half marathon	Marathon
36	1800	0:36:20	1:15:10	2:48:00	5:43:00
38	1900	0:34:20	1:10:50	2:38:00	5:24:00
40	2000	0:32:20	1:07:00	2:29:30	5:06:00
42	2100	0:30:40	1:03:30	2:21:30	4:51:00
44	2200	0:29:10	1:00:20	2:14:30	4:37:00
46	2300	0:27:50	0:57:30	2:08:00	4:24:00
48	2400	0:26:30	0:55:00	2:02:00	4:12:00
50	2500	0:25:20	0:52:40	1:57:00	4:02:00
52	2600	0:24:20	0:50:30	1:52:00	3:52:00
54	2700	0:23:20	0:48:30	1:47:30	3:43:00
56	2800	0:22:30	0:46:40	1:43:30	3:35:00
58	2900	0:21:40	0:45:00	1:39:30	3:27:00
60	3000	0:20:50	0:43:20	1:36:00	3:20:00
62	3100	0:20:10	0:41:50	1:32:30	3:13:00
64	3200	0:19:30	0:40:30	1:29:30	3:07:00
66	3300	0:18:50	0:39:10	1:26:30	3:01:00
68	3350	0:18:20	0:38:00	1:24:00	2:55:00
70	3450	0:17:50	0:36:50	1:21:30	2:50:00
72	3550	0:17:10	0:35:50	1:19:00	2:45:00

Running Index	Cooper test (m)	5 km (h:m-m:ss)	10 km (h:m-m:ss)	Half marathon	Marathon
74	3650	0:16:40	0:34:50	1:17:00	2:40:00
76	3750	0:16:20	0:33:50	1:14:30	2:36:00
78	3850	0:15:50	0:33:00	1:12:30	2:32:00

HEART RATE ZONES

Polar heart rate zones introduce a new level of effectiveness in heart rate-based training. Training is divided into five heart rate zones based on percentages of maximum heart rate. With heart rate zones, you can easily select and monitor training intensities.

Target zone	Intensity % of HR_{max} HR_{max} = Maximum heart rate (220-age).	Example: Heart rate zones (in beats per minute) for a 30-years-old person, whose maximum heart rate is 190 bpm (220–30).	Example durations	Training effect
MAXIMUM 	90–100%	171–190 bpm	less than 5 minutes	Benefits: Maximal or near maximal effort for breathing and muscles. Feels like: Very exhausting for breathing and muscles. Recommended for: Very experienced and fit athletes. Short intervals only, usually in final preparation for short events.
HARD 	80–90%	152–172 bpm	2–10 minutes	Benefits: Increased ability to sustain high speed endurance. Feels like: Causes muscular fatigue and heavy breath-

Target zone	Intensity % of HR_{max} HR_{max} = Maximum heart rate (220-age).	Example: Heart rate zones (in beats per minute) for a 30-years-old person, whose maximum heart rate is 190 bpm (220–30).	Example durations	Training effect
				ing. Recommended for: Experienced athletes for year-round training, and for various durations. Becomes more important during pre competition season.
MODERATE 	70–80% 133–152 bpm		10–40 minutes	Benefits: Enhances general training pace, makes moderate intensity efforts easier and improves efficiency. Feels like: Steady, controlled, fast breathing. Recommended for: Athletes training for events, or looking for performance gains.
LIGHT 	60–70%	114-133 bpm	40–80 minutes	Benefits: Improves general base fitness, improves recovery and boosts metabolism. Feels like: Comfortable and easy, low muscle and

Target zone	Intensity % of HR_{max} HR_{max} = Maximum heart rate (220-age).	Example: Heart rate zones (in beats per minute) for a 30-years-old person, whose maximum heart rate is 190 bpm (220–30).	Example durations	Training effect
				cardiovascular load. Recommended for: Everybody for long training sessions during base training periods and for recovery exercises during competition season.
VERY LIGHT 	50–60%	104–114 bpm	20–40 minutes	Benefits: Helps to warm up and cool down and assists recovery. Feels like: Very easy, little strain. Recommended for: For recovery and cool-down, throughout training season.

Training in heart rate zone 1 is done at a very low intensity. The main training principle is that performance improves when recovering after, and not only during training. Accelerate the recovery process with very light intensity training.

Training in heart rate zone 2 is for endurance training, an essential part of any training program. Training sessions in this zone are easy and aerobic. Long-duration training in this light zone results in effective energy expenditure. Progress will require persistence.

Aerobic power is enhanced in heart rate zone 3. The training intensity is higher than in sport zones 1 and 2, but still mainly aerobic. Training in sport zone 3 may, for example, consist of intervals followed by recovery. Training in this zone is especially effective for improving the efficiency of blood circulation in the heart and skeletal muscles.

If your goal is to compete at top potential, you will have to train in heart rate zones 4 and 5. In these zones, you exercise anaerobically in intervals of up to 10 minutes. The shorter the interval, the higher the intensity. Sufficient recovery between intervals is very important. The training pattern in zones 4 and 5 is designed to produce peak performance.

The Polar target heart rate zones can be personalized by using a laboratory measured HRmax value, or by taking a field test to measure the value yourself. When training in a target heart rate zone, try to make use of the entire zone. The mid-zone is a good target, but keeping your heart rate at that exact level all the time is not necessary. Heart rate gradually adjusts to training intensity. For instance, when crossing from heart rate target zone 1 to 3, the circulatory system and heart rate will adjust in 3-5 minutes.

Heart rate responds to training intensity depending on factors such as fitness and recovery levels, as well as environmental factors. It is important to look out for subjective feelings of fatigue, and to adjust your training program accordingly.

SMART CALORIES

The most accurate calorie counter on the market calculates the number of calories burned. The energy expenditure calculation is based on:

- Body weight, height, age, gender
- Individual maximum heart rate (HR_{max})
- Heart rate during training
- Individual maximal oxygen uptake ($VO2_{max}$)

SPEED ZONES

With the speed/pace zones you can easily monitor speed or pace during your session, and adjust your speed/pace to achieve the targeted training effect. The zones can be used to guide the efficiency of your training during sessions, and help you mix up your training with different training intensities for optimal effects.

SPEED ZONES SETTINGS

The speed zone settings can be adjusted in the Flow web service. They can be turned on or off in the sport profiles they are available in. There are five different zones, and zone limits can be manually adjusted or you can use the default ones. They are sport specific, allowing you to adjust the zones to best suit each sport. The zones are available in running sports (including team sports that involve running), cycling sports as well as rowing and canoeing.

Default

If you choose **Default**, you cannot change the limits. The default zones are an example of speed/pace zones for a person with a relatively high fitness level.

Free

If you choose **Free**, all limits can be changed. For example, if you have tested your actual thresholds, such as anaerobic and aerobic thresholds, or upper and lower lactate thresholds, you can train with zones based on your individual threshold speed or pace. We recommend that you set your anaerobic threshold speed and pace as the minimum for zone 5. If you also use aerobic threshold, set that as the minimum of zone 3.

TRAINING TARGET WITH SPEED ZONES

You can create training targets based on speed/pace zones. After synchronizing the targets via FlowSync, you'll receive guidance from your training device during training.

DURING TRAINING

During your training you can view which zone you are currently training in and the time spent in each zone.

AFTER TRAINING

In the training summary on M400, you'll see an overview of the time spent in each speed zone. After syncing, detailed visual speed zone information can be viewed in the Flow web service.

SPORT PROFILES

Lets you list all your favorite sports and define specific settings for each one of them. For example, you can create tailored views for each sport you do and choose what data you want to see when you train: just your heart rate or just speed and distance – whatever suits you and your training needs and requirements best.

For more information, see Sport Profiles Settings and Sport Profiles in Flow Web Service.

POLAR FLOW APP

Polar Flow app allows you to see an instant visual interpretation of your training data offline straight after your session. It lets you easily access your training targets and view test results. Flow app is the easiest way to sync your training data from your M400 with the Flow web service.

When using the app with your M400, you can:

- Get a quick overview of your training and analyze every detail of your performance right away
    - Route view on a map
    - Training Benefit
    - Start time and duration of your session
    - Average and maximum speed/pace, distance, running index
    - Average and maximum heart rate, cumulative heart rate zones
    - Calories and fat burn % of calories
    - Maximum altitude, ascent and descent
    - Lap details
- See your progress with weekly summaries in the calendar
- Get details of your 24/7 activity (the total number of steps, burned calories, and sleep time)
    - Find out what you're missing from your daily goal and how to reach it
    - See steps, burned calories and sleep time
    - Get inactivity alerts when it's time to get up and move

To start using the Flow app, download it from the App Store or Google Play onto your mobile. For support and more information about using Polar Flow app, go to www.polar.com/en/support/Flow_app. Before taking a new mobile device (smartphone, tablet) into use, it has to be paired with your M400. For more information, see Pairing.

To see your training data in Flow app, you must sync your M400 with it after your session. For information on syncing M400 with Flow app, see Syncing.

POLAR FLOW WEB SERVICE

The Polar Flow web service allows you to plan and analyze every detail of your training and learn more about your performance. Set up and customize M400 to perfectly fit your training needs by adding sports and tailoring settings and training views. Follow and visually analyze your progress, create training targets,and add them to your favorites.

With the Flow web service you can:

- Analyze all of your training details with visual graphs and a route view
- Compare specific data with others like laps or speed vs. heart rate
- See long-term progress by following the trends and details which matter to you the most
- Follow your progress with sports specific weekly or monthly reports
- Share highlights with your followers
- Relive your and other users' sessions afterward

To start using the Flow web service, go to flow.polar.com/start, and create your Polar account if you do not already have one. Download and install FlowSync software from the same place to allow you to sync data between M400 and Flow web service. Also get the Flow app for your mobile for instant analysis and data sync to the web service.

Feed

In **Feed** you can see what you've been up to lately, plus you can see your friends' activities and comments.

Explore

In **Explore** you can discover training sessions and routes by browsing the map. You can add routes to your favorites but they will not be synced to the M400. See public training sessions that other users have shared, and relive your own or other people’s routes and see where the highlights happened.

Diary

In **Diary** you can see your scheduled training sessions, as well as review past results. Information shown includes: training plans in day, week or month view, individual sessions, tests and weekly summaries.

Progress

In **Progress** you can follow your development with reports. Reports are a handy way to follow your progress in training over longer periods. In week, month and year reports you can choose the sport for the report. In custom period, you can choose both the period and the sport. Choose the time period and sport for report from the drop down lists, and press the wheel icon to choose what data you want to view in the report graph.

For support and more information about using the Flow web service, go to, www.polar.com/en/support/flow

TRAINING TARGETS

Create detailed training targets in the Flow web service and sync them to your M400 via Flowsync software or Flow app. During training you can easily follow the guidance on your device.

- **Quick Target**: Fill in one value. Choose a duration, distance or calorie target.
- **Phased Target**: You can split your training into phases and create a different target duration or distance and intensity for each of them. This one is for e.g. creating an interval training session, and adding proper warmup and cool down phases to it.
- **Favorites**: Create a target, and add it to **Favorites** to easily access it every time want to perform it again.

Remember to sync your training targets to your M400 from the Flow web service via FlowSync or Flow App. If you do not sync them, they are only visible in your Flow web service Diary or Favorites list.

CREATE A TRAINING TARGET

1. Go to **Diary**, and click **Add** > **Training target**.
2. In the **Add training target** view, choose **Quick**, **Phased** or **Favorite** (**Race Pace** target can be synced to Polar V800 only).

QUICK TARGET

1. Choose **Quick**
2. Choose **Sport**, enter **Target name** (required), **Date** (optional) and **Time**(optional) and any **Notes** (optional) you want to add.
3. Fill in one of the following values: duration, distance or calories . You can only fill in one of the values.
4. Click **Save** to add the target to your **Diary**, or the favorites icon ☆ to add it to your **Favorites**.

PHASED TARGET

1. Choose **Phased**
2. Choose **Sport**, enter **Target name** (required), **Date** (optional) and **Time**(optional) and any **Notes** (optional) you want to add.
3. Add phases to your target. Choose distance or duration for each phase, manual or automatic next phase start and the intensity.
4. Click **Save** to add the target to your **Diary**, or the favorites icon ☆ to add it to your **Favorites**.

FAVORITES

If you have created a target, and added it to your favorites you can use it as a scheduled target.

1. Choose **Favorites**. Your training target favorites are shown.
2. Click the favorite you want to use as a template for your target.
3. Choose **Sport**, enter **Target name** (required), **Date** (optional) and **Time**(optional) and any **Notes** (optional) you want to add.
4. You can edit the target if you wish, or leave it as it is.
5. Click **Update changes** to save changes made to the favorite. Click **Add to diary** to add the target to your **Diary** without updating the favorite.

After syncing your training targets to your M400, you can find:

- Scheduled training targets in **Diary** (current week and the next 4 weeks)
- Training targets listed as favorites in **Favorites**

When starting your session, access your target from **Diary** or **Favorites**.

For information on starting a training target session, see See "Start a Training Session" on page 29

FAVORITES

In **Favorites**, you can store and manage your favorite training targets. Your M400 can have a maximum of 20 favorites at a time. The number of favorites in the Flow web service is not limited. If you have over 20 favorites in the Flow web service, the first 20 in the list are transferred to your M400 when syncing.

You can change the order of your favorites by dragging and dropping them. Choose the favorite you want to move and drag it into the place you want to put it in the list.

ADD A TRAINING TARGET TO FAVORITES:

1. Create a training target.
2. Click the favorites icon ☆ in the lower right corner of the page.
3. The target is added to your favorites

or

1. Choose an existing target from your **Diary**.
2. Click the favorites icon ☆ in the lower right corner of the page.
3. The target is added to your favorites.

EDIT A FAVORITE

1. Click the favorites icon ☆ in the upper right corner next to your name. All your favorite routes and training targets are shown.
2. Choose the favorite you want to edit:

- **Training targets:** Change the name of the target, or choose edit in the lower right corner to modify the target.

REMOVE A FAVORITE

Click the delete icon in upper right corner of the training target to remove it from the favorites list.

SPORT PROFILES IN FLOW WEB SERVICE

There are four sport profiles on your M400 by default. In the Flow web service you can add new sport profiles to your sports list, as well as edit them and existing profiles. Your M400 can contain a maximum of 20 sport profiles. The number of sport profiles in the Flow web service is not limited. If you have over 20 sport profiles in the Flow web service, the first 20 in the list are transferred to your M400 when syncing.

You can change the order of your sport profiles by dragging and dropping them. Choose the sport you want to move and drag it into the place you want to put it in the list.

ADD A SPORT PROFILE

In the Flow web service:

1. Click your name/profile photo in the upper right corner.
2. Choose **Sport Profiles**.
3. Click **Add sport profile**, and choose the sport from the list.
4. The sport is added to your sport list.

EDIT A SPORT PROFILE

In the Flow web service:

1. Click your name/profile photo in the upper right corner.
2. Choose **Sport profiles**.
3. Click **Edit** under the sport you want to edit.

In each sport profile, you can edit the following information:

BASICS

- Automatic lap (Can be set to duration or distance-based)
- Training sounds
- Speed view

HEART RATE

- Heart rate view (choose beats per minute (bpm) or % of maximum.)
- Heart rate visible to other devices (Other compatible devices using Bluetooth ® Smart wireless technology (e.g. gym equipment) can detect your heart rate.)
- Heart rate zone settings (With the heart rate zones you can easily select and monitor training intensities. If you choose Default, you cannot change heart rate limits. If you choose Free, all limits can be changed. Default heart rate zone limits are calculated from your maximum heart rate.

TRAINING VIEWS

Choose what information you see on your training views during your sessions. You can have a total of eight different training views for each sport profile. Each training view can have a maximum of four different data fields.

Click the pencil icon on an existing view to edit it, or add a new view. You can select one to four items for your view from six categories:

Time	Environment	Body measurement	Distance	Speed
• Time of day • Duration • Lap time • Last lap time	• Altitude • Total ascent • Total descent • Current lap ascent • Current lap descent	• Heart rate • Average heart rate • Maximum heart rate • HR avg in lap • Calories • ZonePointer • Time in zone	• Distance • Lap distance • Last lap distance	• Speed/pace • Average speed/pace • Maximum speed/pace • Lap speed/pace

When you are done with the sport profile settings, click save. To sync the settings to your M400, press synchronize in FlowSync.

SYNCING

You can transfer data from your M400 via the USB cable with FlowSync software or wirelessly via Bluetooth Smart® with the Polar Flow app. To be able sync data between your M400 and the Flow web service and app, you need to have a Polar account and FlowSync software. Go to flow.polar.com/start, and create your Polar account in the Polar Flow web service and download and install FlowSync software onto your PC. Download Flow app onto your mobile from the App Store or Google Play.

Remember to sync and keep your data up-to-date between your M400, the web service and the mobile app wherever you are.

SYNC WITH FLOW APP

Before syncing make sure:

- You have a Polar account and Flow app
- You have registered your M400 in the Flow web service and synced data via FlowSync software at least once.
- Your mobile device has Bluetooth turned on, and airplane mode/flight mode is not turned on.
- You have paired your M400 with your mobile. For more information , See "Pairing" on page 16

There are two ways to sync your data:

1. Sign into Flow app and press and hold the BACK button on your M400.
2. **Connecting to device** is displayed, followed by **Connecting to app**.
3. **Syncing completed** is displayed when you are done.

or

1. Sign into Flow app and go to **Settings > General settings > Pair and sync > Sync data** and press the START button on your M400.
2. **Connecting to device** is displayed, followed by **Connecting to app**.
3. **Syncing completed** is displayed when you are done.

When you sync your M400 with the Flow app, your training and activity data are also synced automatically via an internet connection to the Flow web service.

For support and more information about using Polar Flow app, go to www.polar.com/en/support/Flow_app

SYNC WITH FLOW WEB SERVICE VIA FLOWSYNC

To sync data with the Flow web service you need FlowSync software. Go to flow.polar.com/start, and download and install it before trying to sync.

1. Plug the micro USB connector into the USB port in the M400, and plug the other end of the cable into your PC. Make sure FlowSync software is running.
2. The FlowSync window opens on your computer, and the syncing starts.
3. Completed is displayed when you are done.

Every time you plug in your M400 to your computer, the Polar FlowSync software will transfer your data to the Polar Flow web service and sync any settings you may have changed. If the syncing does not automatically start, start FlowSync from the desktop icon (Windows) or from the applications folder (Mac OS X). Every time a firmware update is available, FlowSync will notify you, and request you to install it.

If you change settings in the Flow web service while your M400 is plugged into your computer, press the synchronize button on FlowSync to transfer to the settings to your M400.

For support and more information about using the Flow web service, go to www.polar.com/en/support/flow

For support and more information about using FlowSync software, go to www.-polar.com/en/support/FlowSync

CARING FOR YOUR M400

Like any electronic device, the Polar M400 should be kept clean and treated with care. The instructions below will help you fulfill the guarantee obligations, keep the device in peak condition and avoid any issues in charging or syncing.

M400

Keep the device clean

- You can wash the device with a mild soap and water solution under running water. Do not use alcohol or any abrasive material such as steel wool or cleaning chemicals.
- If you don't wear the device 24/7, wipe off any moisture before storing it. Don't store in non-breathable material or in a damp environment, e.g. plastic bag or damp gym bag.

Keep the device's USB port clean to ensure fluent charging and syncing

- Open the USB port cover and rinse the USB port with lukewarm water after each training session. After rinsing, leave the cover open for a while to let the USB port dry. **Do not charge the device when the USB port is wet.**
- Keep the USB port cover closed when you are not charging or syncing the device. Close it also after you have rinsed the USB port and it has dried. When using the USB port, check that there is no moisture, hair, dust or dirt on the sealing surface area. Gently wipe off any dirt. A toothpick can be used to remove hair, dust or other dirt from the connector cavity. Don't use any sharp tools for cleaning to avoid scratching.

Do not leave the device in extreme cold (below –10 °C/14 °F) and heat (above 50 °C/120 °F) or under direct sunlight.

HEART RATE SENSOR

Connector: Detach the connector from the strap after every use and dry the connector with a soft towel. Clean the connector with a mild soap and water solution when needed. Never use alcohol or any abrasive material (e.g. steel wool or cleaning chemicals).

Strap: Rinse the strap under running water after every use and hang to dry. Clean the strap gently with a mild soap and water solution when needed. Do not use moisturizing soaps, because they can leave residue on the strap. Do not soak, iron, dry clean or bleach the strap. Do not stretch the strap or bend the electrode areas sharply.

Check the washing instructions on the label of the strap.

STORING

M400: Keep your training device in a cool and dry place. Do not keep it in a damp environment, in non-breathable material (a plastic bag or a sports bag) nor with conductive material (a wet towel). Do not expose the training device to direct sunlight for extended periods, such as by leaving it in a car or mounted on the bike mount. It is recommended to store the training device partially or fully charged. The battery slowly loses its charge when it is stored. If you are going to store the training device for several months, it is recommended to recharge it after a few months. This will prolong the battery lifetime.

Heart rate sensor: Dry and store the heart rate sensor strap and the connector separately to maximize the battery lifetime. Keep the heart rate sensor in a cool and dry place. To prevent snap oxidation, do not store the heart rate sensor wet in non-breathing material, such as a sports bag. Do not expose the heart rate sensor to direct sunlight for extended periods.

SERVICE

During the two-year guarantee/warranty period we recommend that you have service done by an authorized Polar Service Center only. The warranty does not cover damage or consequential damage caused by service not authorized by Polar Electro. For further information, see Limited International Polar Guarantee.

For contact information and all Polar Service Center addresses, visit www.polar.com/support and country-specific websites.

Register your Polar product at http://register.polar.fi/ to ensure we can keep improving our products and services to better meet your needs.

The username for your Polar Account is always your email address. The same username and password are valid for Polar product registration, Polar Flow web service and app, Polar discussion forum and newsletter registration.

IMPORTANT INFORMATION

BATTERIES

The Polar M400 has an internal, rechargeable battery. Rechargeable batteries have a limited number of charge cycles. You can charge and discharge the battery over 300 times before a notable decrease in its capacity. The number of charge cycles also varies according to use and operating conditions.

At the end of the working life of the product Polar encourages you to minimize possible effects of waste on the environment and human health by following local waste disposal regulations and, where possible, utilizing separate collection of electronic devices. Do not dispose of this product as unsorted municipal waste.

The Polar H7 heart rate sensor has a user changeable battery. To change the battery yourself, please follow the instructions carefully as instructed in Changing Heart Rate Sensor Battery.

Keep the batteries away from children. If swallowed, contact a doctor immediately. Batteries should be disposed of properly according to local regulations.

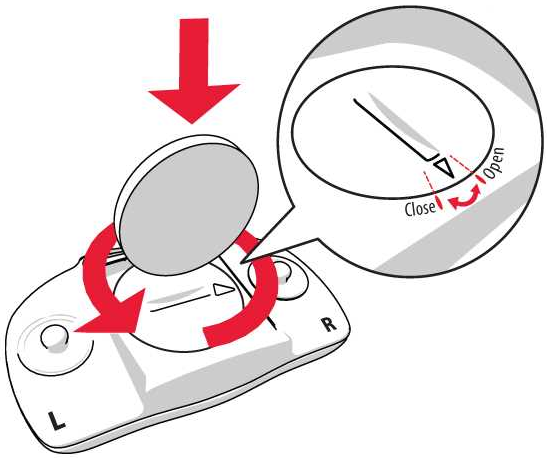
CHANGING HEART RATE SENSOR BATTERY

To change the battery of the heart rate sensor yourself, carefully follow the instructions below:

When changing the battery, make sure the sealing ring is not damaged, in which case you should replace it with a new one. You can purchase the sealing ring/battery kits at well-equipped Polar retailers and authorized Polar Services. In the USA and Canada, the additional sealing rings are available at authorized Polar Service Centers. In the USA the sealing ring/battery kits are also available at www.shoppolar.com.

When handling a new, fully charged battery, avoid clasp-like contact, i.e. simultaneously from both sides, with metal or electrically conducting tools, like tweezers. This may short circuit the battery, causing it to discharge more rapidly. Typically, short circuiting does not damage the battery, but it may decrease the capacity and the lifetime of the battery.

1. Using a coin, open the battery cover by turning it counterclockwise to OPEN.
2. Insert the battery (CR 2025) inside the cover with the positive (+) side against the cover. Make sure the sealing ring is in the groove to ensure water resistance.
3. Press the cover back into the connector.
4. Use the coin to turn the cover clockwise to CLOSE.



⚠ Danger of explosion if the battery is replaced with wrong type.

PRECAUTIONS

The Polar M400 training device shows your performance indicators. The training device is designed to indicate the level of physiological strain and recovery during and after an exercise session. It measures heart rate, speed and distance. No other use is intended or implied.

The training device should not be used for obtaining environmental measurements that require professional or industrial precision.

INTERFERENCE DURING TRAINING

Electromagnetic Interference and Training Equipment

Disturbance may occur near electrical devices. Also WLAN base stations may cause interference when training with the training device. To avoid erratic reading or misbehavior, move away from possible sources of disturbance.

Training equipment with electronic or electrical components such as LED displays, motors and electrical brakes may cause interfering stray signals. To solve these problems, try the following:

1. Remove the heart rate sensor strap from your chest and use the training equipment as you would normally.

2. Move the training device around until you find an area in which it displays no stray reading or does not flash the heart symbol. Interference is often worst directly in front of the display panel of the equipment, while the left or right side of the display is relatively free of disturbance.
3. Put the heart rate sensor strap back on your chest and keep the training device in this interference-free area as much as possible.

If the training device still does not work with the training equipment, it may be electrically too noisy for wireless heart rate measurement. For further information, www.polar.com/support.

MINIMIZING RISKS WHEN TRAINING

Training may include some risk. Before beginning a regular training program, it is recommended that you answer the following questions concerning your health status. If you answer yes to any of these questions, we recommend that you consult a doctor before starting any training program.

- Have you been physically inactive for the past 5 years?
- Do you have high blood pressure or high blood cholesterol?
- Are you taking any blood pressure or heart medication?
- Do you have a history of breathing problems?
- Do you have symptoms of any disease?
- Are you recovering from a serious illness or medical treatment?
- Do you use a pacemaker or other implanted electronic device?
- Do you smoke?
- Are you pregnant?

Note that in addition to training intensity, medications for heart conditions, blood pressure, psychological conditions, asthma, breathing, etc., as well as some energy drinks, alcohol, and nicotine may also affect heart rate.

It is important to be sensitive to your body's responses during training. **If you feel unexpected pain or excessive fatigue when training, it is recommended that you stop the training or continue at a lighter intensity.**

Note! If you are using a pacemaker, defibrillator or other implanted electronic device, you can use Polar products. In theory interference to pacemaker caused by Polar products should not be possible. In practice no reports exist to suggest anyone ever having experienced interference. We cannot however issue an official guarantee on our products' suitability with all pacemakers or other implanted devices, such as defibrillators, due to the variety of devices available. If you have any doubts, or if you experience any unusual sensations while using Polar products, please consult your physician or contact the implanted electronic device manufacturer to determine safety in your case.

If you are allergic to any substance that comes into contact with your skin or if you suspect an allergic reaction due to using the product, check the listed materials in Technical Specifications. To avoid any skin reaction to

the heart rate sensor, wear it over a shirt, but moisten the shirt well under the electrodes to ensure flawless operation.

The combined impact of moisture and intense abrasion may cause a black color to come off the heart rate sensor's surface, possibly staining light-colored clothes. If you use perfume or insect repellent on your skin, you must ensure that it does not come into contact with the training device or the heart rate sensor.

TECHNICAL SPECIFICATION

M400

Battery type:	190 mAh Li-pol rechargeable battery
Operating time:	**In continuous use:** Up to 8 hours with GPS and heart rate sensor **In time mode with daily activity monitoring**: Approximately 30 days
Operating temperature:	-10 °C to +50 °C / 14 °F to 122 °F
Training device materials:	Stainless steel, Polycarbonate/acrylonitrile butadiene styrene, Acrylonitrile butadiene styrene, Thermoplastic urethane, Polymethylmetacrylate, Silicone
Watch accuracy:	Better than ± 0.5 seconds / day at 25 °C / 77 °F temperature
GPS accuracy:	Distance ±2%, speed ±2 km/h
Altitude resolution:	1 m
Ascent/Descent resolution:	5 m
Maximum altitude:	9000 m / 29525 ft
Sample rate:	1 s
Accuracy of heart rate monitor:	± 1% or 1 bpm, whichever larger. Definition applies to stable conditions.
Heart rate measuring range:	15-240 bpm
Current speed display range:	0-399 km/h 247.9 mph
Water resistance:	30 m (suitable for bathing and swimming)

Memory capacity:	30 h training with GPS and heart rate depending on your language settings
Display resolution:	128 x 128

H7 HEART RATE SENSOR

Battery life:	200 h
Battery type:	CR 2025
Battery sealing ring:	O-ring 20.0 x 1.0 Material FPM
Operating temperature:	-10 °C to +50 °C/14 °F to 122 °F
Connector material:	Polyamide
Strap material:	38% Polyamide, 29% Polyurethane, 20% Elastane, 13% Polyester
Water resistance:	30 m

Uses Bluetooth® Smart wireless technology.

POLAR FLOWSYNC SOFTWARE AND USB CABLE

To use FlowSync software you need a computer with Microsoft Windows or Mac OS X operating system with an internet connection and a free USB port for USB cable.

FlowSync is compatible with the following operating systems:

Computer operating system	**64-bit**
Windows XP	
Windows 7	X
Windows 8	X
Mac OS X 10.6	X
Mac OS X 10.7	X
Mac OS X 10.8	X
Mac OS X 10.9	X

POLAR FLOW MOBILE APPLICATION COMPATIBILITY

Polar Flow mobile app for iOS needs Apple's iOS 7.0 or later.

- iPhone 4S or later

Polar Flow mobile app for Android needs Android 4.3 or later

The Polar M400 training device applies the following patented technologies, among others:

- OwnIndex® technology for Fitness test.

WATER RESISTANCE

Water resistance of Polar products is tested according to International IEC 60529 IPX7 (1m, 30min, 20ºC). Products are divided into four different categories according to water resistance. Check the back of your Polar product for the water resistance category and compare it to the chart below. Please note that these definitions do not necessarily apply to products of other manufacturers.

Marking on case back	Water resistant characteristics
Water resistant IPX7	Not suitable for bathing or swimming. Protected against wash splashes and raindrops. Do not wash with a pressure washer.
Water resistant	Not suitable for swimming. Protected against wash splashes, sweat, raindrops etc. Do not wash with a pressure washer.
Water resistant **30 m**/50 m	Suitable for bathing and swimming
Water resistant 100 m	Suitable for swimming and snorkeling (without air tanks)

LIMITED INTERNATIONAL POLAR GUARANTEE

- This guarantee does not affect the consumer's statutory rights under applicable national or state laws in force, or the consumer's rights against the dealer arising from their sales/purchase contract.
- This limited Polar international guarantee is issued by Polar Electro Inc. for consumers who have purchased this product in the USA or Canada. This limited Polar international guarantee is issued by Polar Electro Oy for consumers who have purchased this product in other countries.
- Polar Electro Oy/Polar Electro Inc. guarantees the original consumer/purchaser of this device that the product will be free from defects in material or workmanship for two (2) years from the date of purchase.
- The receipt of the original purchase is your proof of purchase!

- The guarantee does not cover the battery, normal wear and tear, damage due to misuse, abuse, accidents or non-compliance with the precautions; improper maintenance, commercial use, cracked, broken or scratched cases/displays, armband, elastic strap and Polar apparel.
- The guarantee does not cover any damage/s, losses, costs or expenses, direct, indirect or incidental, consequential or special, arising out of, or related to the product.
- Items purchased second hand are not covered by the two (2) year warranty, unless otherwise stipulated by local law.
- During the guarantee period, the product will be either repaired or replaced at any of the authorized Polar Service Centers regardless of the country of purchase.

Guarantee with respect to any product will be limited to countries where the product has been initially marketed.

CE 0537

This product is compliant with Directives 93/42/EEC, 1999/5/EC and 2011/65/EU. The relevant Declaration of Conformity is available at www.polar.com/support

The relevant Declaration of Conformity is available at www.polar.com/en/regulatory_information.

This crossed out wheeled bin marking shows that Polar products are electronic devices and are in the scope of Directive 2012/19/EU of the European Parliament and of the Council on waste electrical and electronic equipment (WEEE) and batteries and accumulators used in products are in the scope of Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators. These products and batteries/accumulators inside Polar products should thus be disposed of separately in EU countries. Polar encourages you to minimize possible effects of waste on the environment and human health also outside the European Union by following local waste disposal regulations and, where possible, utilize separate collection of electronic devices for products, and battery and accumulator collection for batteries and accumulators.

This marking shows that the product is protected against electric shocks.

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Polar Electro Oy is a ISO 9001:2008 certified company.

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COMPLIANCE STATEMENT

COMPLIANCE STATEMENT

CANADA

Polar Electro Oy has not approved any changes or modifications to this device by the user. Any changes or modifications could void the user's authority to operate the equipment.

Polar Electro Oy n'a approué aucune modification apportée à l'appareil par l'utilisateur, quelle qu'en soit la nature. Tout changement ou toute modification peuvent annuler le droit d'utilisation de l'appareil par l'utilisateur.

Industry Canada (IC) regulatory information

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Avis de conformité à la réglementation d'Industrie Canada

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Class B digital device notice

This Class B digital apparatus complies with Canadian ICES-003, RSS-Gen and RSS-210.

Cet appareil numérique de la classe B est conforme à la norme NMB-003, CNR-Gen et CNR-210 du Canada.

USA

Polar Electro Oy has not approved any changes or modifications to this device by the user. Any changes or modifi cations could void the user's authority to operate the equipment.

FCC regulatory information

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/ TV technician for help.

This product emits radio frequency energy, but the radiated output power of this device is far below the FCC radio frequency exposure limits.

This equipment complies with FCC RF radiation exposure limits forth for an uncontrolled environment. Nevertheless, the device should be used in such a manner that the potential for human contact with the antenna during normal operation is minimized.

DISCLAIMER

- The material in this manual is for informational purposes only. The products it describes are subject to change without prior notice, due to the manufacturer's continuous development program.
- Polar Electro Inc./Polar Electro Oy makes no representations or warranties with respect to this manual or with respect to the products described herein.
- Polar Electro Inc./Polar Electro Oy shall not be liable for any damages, losses, costs or expenses, direct, indirect or incidental, consequential or special, arising out of, or related to the use of this material or the products described herein.

1.3 EN 12/2014